#### AIN SHAMS UNIVERSITY FACULTY OF ENGINEERING PUBLIC WORKS DEPARTMENT



ESTIMATION OF PARKING RATES FOR SOME DIFFERENT LAND-USES IN GREATER CAIRO

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A Thesis submitted to PUBLIC WORKS DEPARTMENT, FACULTY OF ENGINEERING, AIN SHAMS UNIVERSITY.

**FOR** 

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#### **STATEMENT**

The dissertation is submitted to Ain Shams University for the degree of Master of Science in Civil Engineering.

The work included in this thesis was carried out by the author in the Department of Public Works, Ain Shames University.

No part of this thesis has been submitted for a degree or a qualification of any other University Institution

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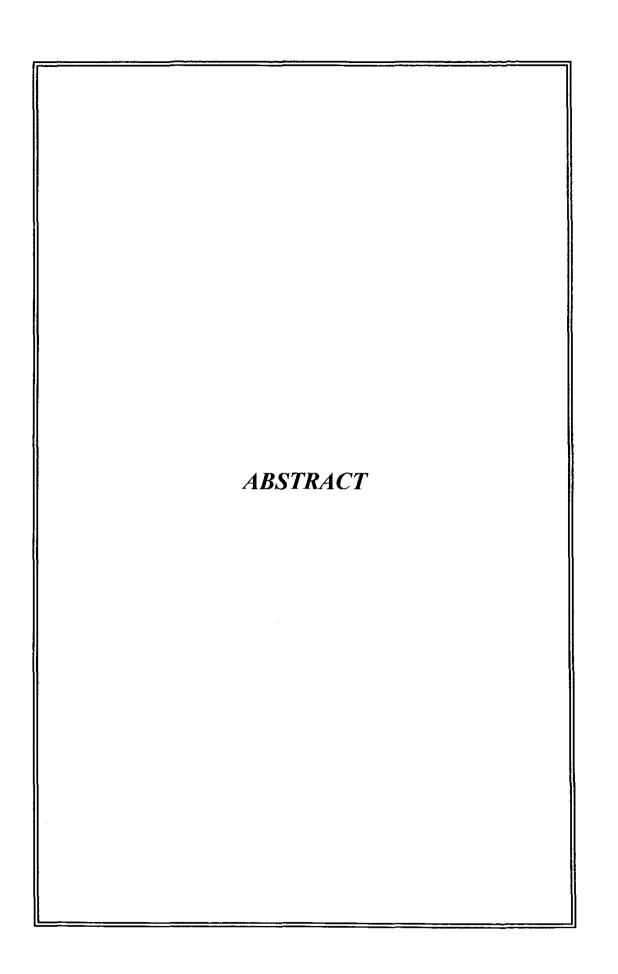
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#### ABSTRACT

Traffic problems resulting from parking continuously increase, specially in large and crowded cities, like Cairo, where parking demand being greater than the supply, cause troubles that in turn result in traffic delays and reduction in the capacity of the road's network of the city. In addition, traffic accidents increase with the increase of traffic parking problem. What makes the problem more serious, is the intensification of activities generating parking in certain regions, while, on the other hand, no adequate parking spaces to meet the expected parking demand are made available in those regions. This research aims at the determination of practical parking rates, for different land uses, that are suitable for both local circumstances and user's characteristics, and meanwhile match with the land use.

In this research the term "land use" represent the different types of activities and parcels, in grater Cairo, which generate parking.

Moreover the present research aims at identification of the different factors influencing the parking demand, and that for each one of those activities. This will help achieving general parking rates that can be used in different circumstances. The activities considered in this research are: theaters, sport clubs, un-subsidized hospitals, partially subsidized hospitals, subsidized hospitals, sport stadiums and hotels.

A programme of field parking surveys were conducted to gather data about the parking requirements for each of the activities aforesaid. Parking forms were specially designed for different land uses. Other forms were designed for land use survey. Then data was analyzed, and parking rates for different activities under consideration were deduced. The factors affecting the parking rates were also assessed.